

Welcome to the Lexmark

Universal Driver

version 1.3



Contents

| | |
|--|-----------|
| Introduction..... | 3 |
| What are the Lexmark Universal Print Drivers?..... | 3 |
| Benefits..... | 3 |
| Before you begin..... | 4 |
| Operating system support..... | 4 |
| Device Compatibility..... | 4 |
| Connectivity..... | 6 |
| Supported paper sizes and types..... | 7 |
| Paper sizes supported by the Universal Printer Driver..... | 7 |
| Paper types and weights supported by the printer..... | 7 |
| Language support..... | 8 |
| Installing the Universal Print Driver..... | 9 |
| Installing the Universal Printer Driver..... | 9 |
| Configuring installed options..... | 9 |
| Understanding the Universal Print Driver..... | 10 |
| Page Layout options..... | 10 |
| Print Quality options..... | 11 |
| Finishing options..... | 12 |
| Advanced features..... | 12 |
| Options..... | 13 |
| Frequently asked questions..... | 14 |
| Frequently asked questions..... | 14 |

Introduction

This document introduces the Lexmark™ *Universal Print Driver* (UPD), describes its capabilities, and provides an overview of the devices it supports. This edition applies to the Lexmark Universal Print Drivers for Windows, version 1.3.

What are the Lexmark Universal Print Drivers?

The Lexmark Universal Print Drivers provide users and administrators with a standardized, one-driver solution for their printing needs. Instead of installing and managing individual drivers for each printer model, administrators can install the Lexmark Universal Print Drivers for use with a variety of both mono and color laser printers.

Benefits

Allows versatility

The Lexmark Universal Drivers are available in 19 languages, supporting more than 100 printer models whether attached locally or over a network. All packages have been tested in cluster server environments, Microsoft Terminal Server and Citrix Presentation Server environments, and are Microsoft WHQL certified (digitally signed). PCL 5 emulation and PostScript 2 and 3 emulations are available for Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP, and Windows 2000, in both 32- and 64-bit versions.

Enables bidirectional communication

Bidirectional capability automatically detects and updates the installed options both at install time and upon user request. This allows the driver to adapt to the various capabilities of our different printers, but unlike other universal print drivers, the network traffic is minimal.

Reduces cost for IT support

With only one package to manage, testing and internal certification of print drivers is simplified by the use of the Lexmark Universal Driver packages. Time spent on installation, both on servers and workstations, is greatly reduced, and hard drive space formerly occupied by many product-specific drivers is now diminished significantly.

Enables increased user efficiency

The Lexmark Universal Driver packages use the same graphic user interface as the product-specific drivers the users are accustomed to, and now all queues will share that same interface, decreasing calls to the help desk. Users can create and save profiles for their most frequently used settings, or use profiles that were created for them by IT.

Facilitates corporate sustainability initiatives

Administrators can use the Lexmark Universal Driver packages to encourage or enforce their organization's environmental policies. The default settings can be modified to include duplex, multi-page printing (N-up), toner darkness, and other resource-saving measures.

Before you begin

Operating system support

The Lexmark Universal Print Drivers are available for the following operating systems in 32-bit and 64-bit versions (where available):

- Windows Server 2008
- Windows Vista
- Windows Server 2003
- Windows XP
- Windows Server 2000
- Windows 2000

The Universal Print Drivers are also compatible with the following Citrix implementations in 32-bit and 64-bit versions (where available):

- Windows Server 2003 with Citrix Presentation Server 4.0
- Windows Server 2003 with Citrix Presentation Server 3.0
- Windows Server 2000 with Citrix Presentation Server 4.0
- Windows Server 2000 with Citrix Presentation Server 3.0

Device Compatibility

The Universal Print Drivers are compatible with the following devices:

| Device | PCL emulation | PS emulation |
|--|---------------|--------------|
| Mono Laser Printers | | |
| E120n ¹ | √ | |
| E220 ¹ | √ | |
| E230, E232, E234 | √ | |
| E238, E240 | √ | |
| E240n, E340, E342n | √ | √ |
| E250d, E250dn, E350d, E352dn, E450dn | √ | √ |
| E260d, E260dn | √ | √ |
| E330 ¹ , E332 ¹ | √ | √ |
| E360d, E360dn | √ | √ |
| E460dn, E460dw | √ | |
| E320, E322 | √ | √ |
| ¹ The duplex function is not supported. | | |
| ² Custom forms, collation, booklet printing, Print and Hold, and most print quality controls are not available. | | |

| Device | PCL emulation | PS emulation |
|--|---------------|--------------|
| E321 ¹ , E323 ¹ | √ | √ |
| T420 | √ | √ |
| T430 | √ | √ |
| T520, T522 | √ | √ |
| T620, T622 | √ | √ |
| T630, T632, T634 | √ | √ |
| T640, T642, T644 | √ | √ |
| T650, T652, T654 | √ | √ |
| W820 | √ | √ |
| W840 | √ | √ |
| Optra S 1625 | √ | |
| Optra S 1855 | √ | |
| Optra S 2420 | √ | |
| Optra S 2450, Optra S 2455 | √ | |
| Mono Multifunction Printers | | |
| X340n ² , X342n ² | √ | |
| X422 | √ | √ |
| X642e | √ | √ |
| X644e, X646e | √ | √ |
| X646ef | √ | √ |
| X651de, X652de, X654dte, X656de, X658de | √ | √ |
| X820e | √ | √ |
| X830, X832 | √ | √ |
| X850e, X852e, X854e | √ | √ |
| Color Laser Printers | | |
| C510 | √ | √ |
| C520, C522, C524 | √ | √ |
| C530, C532, C534 | √ | √ |
| C540, C543, C544 | √ | √ |
| C750 | √ | √ |
| C760, C762 | √ | √ |
| C770, C772 | √ | √ |
| ¹ The duplex function is not supported. | | |
| ² Custom forms, collation, booklet printing, Print and Hold, and most print quality controls are not available. | | |

Before you begin

| Device | PCL emulation | PS emulation |
|--|---------------|--------------|
| C780, C782, C782 XL | √ | √ |
| C912 | √ | √ |
| C920 | √ | √ |
| C935 | √ | √ |
| Color Multifunction Printers | | |
| X543, X544 | √ | √ |
| X762e | √ | √ |
| X772e | √ | √ |
| X782e, X782e XL | √ | √ |
| X912 | √ | √ |
| X940e, X945e | √ | √ |
| ¹ The duplex function is not supported. | | |
| ² Custom forms, collation, booklet printing, Print and Hold, and most print quality controls are not available. | | |

Connectivity

The Lexmark Universal Print Drivers support direct printing to IP ports, parallel ports, and USB ports in all supported operating systems.

Standard IP Ports

Printing to standard IP ports is supported via the Windows native TCP port monitor and Port 9100 in all supported operating systems.

Lexmark Enhanced TCP/IP Ports

Lexmark Enhanced TCP/IP ports are not included as part of the Lexmark Universal Print Driver package.

If enhanced port capability is installed separately on the host system, printing to an enhanced port is supported in Lexmark Universal Print Drivers.

UNC Ports

UNC ports are supported.

LPR Ports

LPR ports are supported if available in the operating system.

Locally-Attached Devices

USB and parallel connections are supported.

Supported paper sizes and types

Note: To use a paper size that is unlisted, configure a Universal Paper Size.

Paper sizes supported by the Universal Printer Driver

| Paper size | Dimensions |
|---------------------------------|--|
| A3 | 297 x 420 mm (11.7 x 16.5 in.) |
| A4 | 210 x 297 mm (8.3 x 11.7 in.) |
| A5 | 148 x 210 mm (5.8 x 8.3 in.) |
| A6 | 105 x 148 mm (4.1 x 5.8 in.) |
| B4 | 250 x 254 mm (9.8 x 10 in.) |
| B5 | 182 x 257 mm (7.2 x 10.1 in.) |
| Executive | 184 x 267 mm (7.3 x 10.5 in.) |
| Banner 1 | 216 x 914 mm (10.1 x 36.0 in.) |
| Banner 2 | 216 x 1219 mm (10.1 x 48.0 in.) |
| Banner 3 | 297 x 914 mm (11.7 x 36.0 in.) |
| Banner 4 | 297 x 1219 mm (11.7 x 48.0 in.) |
| Folio | 216 x 330 mm (8.5 x 13 in.) |
| Legal | 216 x 356 mm (8.5 x 14 in.) |
| Letter | 216 x 279 mm (8.5 x 11 in.) |
| Statement | 140 x 216 mm (5.5 x 8.5 in.) |
| Tabloid | 279 x 432 mm (11 x 17 in.) |
| Universal | 100 x 148 mm (3.9 x 5.8 in.) up to 305 x 483 mm (11.7 x 19 in.) ² |
| 7 3/4 Envelope (Monarch) | 98 x 191 mm (3.9 x 7.5 in.) |
| B5 Envelope | 176 x 250 mm (6.9 x 9.8 in.) |
| C5 Envelope | 162 x 229 mm (6.4 x 9 in.) |
| 9 Envelope | 98 x 225 mm (3.9 x 8.9 in.) |
| 10 Envelope | 105 x 241 mm (4.1 x 9.5 in.) |
| DL Envelope | 110 x 220 mm (4.3 x 8.7 in.) |

Paper types and weights supported by the printer

- Plain
- Bond
- Transparency
- Glossy
- Card stock

- Labels
- Letterhead
- Preprinted
- Colored paper
- Envelope
- Light paper
- Heavy paper
- Rough paper
- Recycled

Note: The Universal Printer Driver also supports six user-defined custom paper types.

Language support

The Lexmark Universal Print Drivers support 19 languages.

- Chinese (simplified)
- Chinese (traditional)
- Danish
- Dutch
- English
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Brazilian)
- Romanian
- Russian
- Spanish
- Swedish
- Turkish

Installing the Universal Print Driver

Depending on the needs of the individual administrator, the Universal Print Driver may be installed through the Windows Add Printer Wizard or through the System Administrator installation package available on the Lexmark Web site.

Installing the Universal Printer Driver

- 1 Go to **www.lexmark.com**.
- 2 Under **Drivers and Downloads**, click **Driver Finder**.
- 3 Locate your printer.
- 4 From the drop-down menu, select the appropriate operating system.
- 5 From Download Type, select **Universal Printer Driver**.
- 6 Click **Download Now** for the Universal Print Driver you want to install or for the Lexmark Universal Driver System Administrator package.
- 7 Follow the instructions on the screen to download the Universal Printer Driver.

Configuring installed options

If bidirectional communication is enabled for the printer, available options will be detected and installed automatically.

If bidirectional communication is not available, install options manually.

Adding an option manually

- 1 Click the **Install Options** tab.
- 2 From the Available options list, select the appropriate option.
- 3 Click **Add>>** to move that option to the Currently installed options list.
- 4 Click **OK**.

Removing an option manually

- 1 Click the **Install Options** tab.
- 2 From the Currently installed options list, select the appropriate option.
- 3 Click **<<Remove** to move that option to the Available options list.
- 4 Click **OK**.

Note: These functions are available only to users with administrative privileges on computers using Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP, and Windows 2000.

Understanding the Universal Print Driver

Page Layout options

| Select | To |
|---|---|
| Collate | <p>Specify that multiple copies of a document are collated. For example, if a document has five pages and two copies are requested, then the collated output would be 1, 2, 3, 4, 5, 1, 2, 3, 4, 5. The non-collated output would be 1, 1, 2, 2, 3, 3, 4, 4, 5, 5.</p> <p>If there is insufficient memory installed to collate the document, then the collated output is generated for each page already stored in memory, so the output might be 1, 2, 3, 1, 2, 3, 4, 5, 4, 5.</p> <p>Note: Collate settings are not saved if the Printer-based collation setting is set to Off on the Install Options tab.</p> |
| Orientation | <p>Specify the alignment of the paper or form when it is printed.</p> <ul style="list-style-type: none"> • Portrait—Vertical page orientation, where the page is taller than it is wide • Landscape—Horizontal page orientation, where the page is wider than it is tall • Rotate 180°—Turning the document “upside down” on the page. This option can be used with any other orientation option. |
| Mirror ¹ | <p>Rotate the document around its center line. The printed image will appear as though it were held up to a mirror.</p> |
| Scaling ¹ | <p>Reduce or enlarge the document.</p> <p>A value smaller than 100 produces a smaller document, and a value greater than 100 produces a larger document.</p> <p>Note: Some Windows programs offer a scaling option. Using the two options simultaneously may produce unexpected results.</p> |
| Automatic duplex ² | <p>Print on both sides of the paper.</p> <p>If the optional duplex unit is installed, then the printer can print on both sides of the paper automatically.</p> |
| Manual duplex ² | <p>Print on both sides of the paper.</p> <p>Manual duplex printing may be available without the optional duplex unit. Check the documentation that came with the printer to determine which options are supported.</p> |
| Booklet ³ | <p>Print a multiple-page document on both sides of the paper so that when the printed sheets are folded along the long edge, the page numbers are sequential.</p> <p>Note: While the sheets have landscape orientation, the page images remain in portrait orientation, printed on one half of the sheet.</p> |
| Poster | <p>Print a document in a larger format.</p> <p>The printer produces a poster by dividing the document into an equal number of sections and then printing each of those sections on a separate sheet. The sheets can then be trimmed and assembled into the enlarged document, graphic, or chart.</p> |
| <p>¹ PS emulation compatible only. PCL emulation is not available.</p> <p>² Not enabled by default if bidirectional communication is unavailable.</p> <p>³ Supported in printer models with duplex capability.</p> | |

| Select | To |
|--|---|
| Pages per sheet (N-up) | Specify the number of page images to print on one sheet. By default, the printer prints one page image per sheet. To print two page images per sheet, select 2-up, and so on. |
| Print last page first | Print the document in sequential order. The feature ensures that the pages of the print job are in the correct order when retrieved from the exit bin. |
| ¹ PS emulation compatible only. PCL emulation is not available. ² Not enabled by default if bidirectional communication is unavailable. ³ Supported in printer models with duplex capability. | |

Print Quality options

| Select | To |
|---|--|
| Color Printing | Print in color, if color printing is supported by the printer model. |
| Print in black and white* | Switch between color printing and monochrome printing to save color toner and decrease the amount of time necessary to print the document. For color images, this feature substitutes black and white grayscale for color. |
| Color correction* | Adjust the printed color to better match the colors of other output devices or standard color systems. |
| Color balance* | Adjust color by individually increasing or decreasing the amount of toner used for each color plane. |
| ColorSaver™* | Conserve toner in graphics and images while maintaining high-quality text. The amount of toner used to print graphics and images is reduced, however, if text is printed with factory default toner usage. If selected, this setting overrides Toner darkness settings. |
| RGB correction* | Set the color quality controls. <ul style="list-style-type: none"> • Use printer settings—The printer driver applies the brightness, contrast, and saturation settings to the print job. This is the default setting. • Manual—This setting lets the user set each control separately. |
| Brightness | Adjust the darkness of the document. A negative value will darken text, images, and graphics, while a positive value will lighten text, images, and graphics in the document. |
| Contrast | Adjust the degree of difference between levels of gray in the document. A higher setting shows more difference between levels of gray. |
| Saturation | Increase the intensity of all color levels in the document. A higher saturation setting will intensify all colors but will not increase detail in the document. |
| * Supported when Color Printing is available. | |

| Select | To |
|---|--|
| Enhance fine lines | <p>Print your document with finer detail.</p> <ul style="list-style-type: none"> • Use printer settings—The printer driver applies this setting as needed. • On—This setting is used for the print job. • Off—This setting is <i>not</i> used for the print job. <p>Note: Using this option may result in color shifts and artifacts being more easily exposed.</p> |
| Toner darkness | <p>Lighten or darken text and images. Conserve toner by choosing a lighter setting.</p> <p>Note: Using this option may result in a decrease in print quality or artifacts being more easily exposed.</p> |
| Resolution | Specify the printing resolution in <i>dots per inch</i> (dpi). |
| * Supported when Color Printing is available. | |

Finishing options

| Select | To |
|------------|--|
| Staple | Staple the paper. |
| Offset | Offset a set of pages from the previous set of pages at selected times. |
| Hole punch | Punch holes in each printed page of your job so that the document can be placed in a binder or folder. |

Note: The printer must have a finisher installed that supports these options for the options to be available.

Advanced features

| Select | To |
|--|--|
| Watermark | Print a single line of text in the background of the document. Watermarks do not require much memory and are always sent to the printer with the document rather than being stored in the printer. Confidential, Original, and Copy are a few of the available watermarks. |
| Print and Hold | Control how and when a job is printed. |
| Account Tracking | <p>Track print jobs for accounting purposes by entering an account number each time you send a print job to the printer.</p> <p>Use Account Tracking if:</p> <ul style="list-style-type: none"> • Many departments in your company share a network printer. You can assign each department an account number, and then keep track of how many jobs each department prints, and charge each department appropriately. • Your clients request extra copies of documents and contracts. You can assign each client an account number to bill the client for the cost of printing. |
| * PCL emulation only. PostScript emulation is not available. | |

| Select | To |
|--|---|
| Overlay* | Place a previously stored image, like a letterhead, graphic, or preprinted form, on each page of the printed document. You can add and store overlays on the printer for later use. |
| * PCL emulation only. PostScript emulation is not available. | |

Options

| Select | To |
|---------------------|---|
| Flash memory card | Save digital data such as texts, pictures, and formatting. |
| Paper input drawers | Increase the printer input capacity. Options may include the following: <ul style="list-style-type: none"> • Trays 1–5 • Multipurpose feeder • Envelope feeder |
| Paper exit bins | Increase the printer output capacity. Options may include the following: <ul style="list-style-type: none"> • Bins 1–10 • Top bin • Rear bin • Side bin |
| Finisher | Support various finishing options, including offset, staple, and hole punch. |
| Duplex unit | Print on both sides of the paper. |
| Printer hard disk | Increase the printer memory. |

Frequently asked questions

Frequently asked questions

What are the benefits of using the Universal Print Driver?

The main benefit is the amount of time saved in deploying and administering a large fleet of printers. The Universal Print Driver can be used to print to multiple devices, therefore minimizing the number of printer drivers in the network environment.

Is the Universal Print Driver Microsoft certified?

The Universal Print Drivers for Windows 2000 and later are certified for all Windows operating systems for which Microsoft offers certification programs.

Is Point and Print available with this driver?

Point and Print works the same way with the Universal Print Drivers as with any other Lexmark driver.

Will Lexmark stop providing model-specific drivers?

There are no plans for the Universal Print Drivers to replace model-specific drivers.

When should I use a model-specific print driver instead of the UPD?

Use a model-specific driver if you need a PCL-XL (PCL 6) emulation driver or if your printer is not in the list of supported printers. Use model-specific drivers if you need resolutions other than 600 dpi.

Is Plug and Play supported?

Plug and Play is supported, though some preparation is required.

What printing modes are supported with the PCL Emulation Universal Print Driver?

Raster and GL/2 modes are supported. XL modes and host-based printing are not supported.

I have a color laser that is listed in the supported printers, but jobs sent to it always print in black-and-white. What is happening?

In the UPD, color printing capability is an installable option, but it is disabled in a default installation if bi-directional communication is unavailable. Installing the Color Printing installable option will resolve this issue. For more information, see "Configuring installed options" on page 9. If the printer has bi-directional communication, force an update by clicking **Ask Printer** in the Print Properties dialog.

If the Color Printing option is installed, then Print in black and white may be selected. To deselect Print in black and white, go to the Print Quality tab of the Printing Preferences dialog.

Are the Driver Profiler utility and Script Install supported?

Driver Profiler and Script Install are both supported when using the Lexmark Universal Driver System Administrator Package. The Lexmark Universal Driver System Administrator package is available at www.lexmark.com.

Is the UPD based on Microsoft system driver technology?

The Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP, and Windows 2000 Universal Drivers are based on Microsoft system driver technology.